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#### **REMARKS**

Claims 1-47, all the claims pending in the application, are rejected. Claims 27 and 28 are considered allowable if placed in to independent form. Claims 27, 30-37 and 42-46 are amended. Claims 1-26, 29, 38-41 and 47 are cancelled.

# Support for Amendments

The amendments include the reformulation of "allowable" dependent claim 27 as an independent claim directed to a sensor.

Independent claim 30 has been amended to present the relevant limitations for the sensor in method claim form, consistent with the method defined by original claim 42.

Independent claim 42 has been amended to add the limitations that were added to claim 30.

### Specification

The disclosure is objected to because of several informalities that are listed by the Examiner. The specification has been amended in order to remove these bases for objection.

#### Claim Rejections - 35 USC § 112

Claims 27 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite. This rejection is traversed for at least the following reasons.

Claim 27 is rejected because it contains the abbreviation "PEDOT/PSS." Applicants have amended the claim to place it into independent for and to explicitly write out the abbreviation.

Claim 35 is rejected because it is dependent on claim 34, but defines a different type of environmental condition to be measured. The Examiner suggests that claim 35 should depend from claim 33 and not claim 34. This change has been made.

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### Claim Rejections - 35 USC § 102

Claims 1-7, 9-16, 30, 31, 33, 35, 36, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 02/086162 Al (hereafter "WO '162"). This rejection is traversed for at least the following reasons.

First, with respect to claims 1-7, 9-16 and 47, the rejection is most in view of the cancellation of the claims.

Second, independent claim 30 is amended to state the invention as a method, similar to claim 42, with additional wording aimed at better substantiating the existing references to "sensor", "microfluidic channel", and "sensing device" in original claim 30.

#### WO02/086162

Applicant notes that the Examiner dismissed the reference in original claim 30 to the microchannel being defined in a single operation as being a non-limiting feature for original sensor claim 30. There was no allegation by the Examiner that WO02/086162 disclosed a production technique involving forming a microfluidic channel and the electrodes of a sensing device *in a single operation*.

Claim 30 is now reformulated as a method claim to avoid any question that this feature is a limiting feature of claim 30. Applicants respectfully submit that there is no mention of this feature in WO02/086162 and, for that matter, as discussed subsequently, no disclosure of that feature in any of US 5 194 133, EP00633468 or WO02/29912.

Claims 1-7, 9, 11, 13, 15, 17, 19, 20, 30, 31, 33, 35, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Clark et al (USP 5,194,133). This rejection is traversed for at least the following reasons.

First, with respect to claims 1-7, 9, 11, 13, 15, 17, 19, 20 and 47, the rejection is moot in view of the cancellation of the claims.

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Second, independent claim 30 is amended to state the invention as a method, similar to claim 42, with additional wording aimed at better substantiating the existing references to "sensor", "microfluidic channel", and "sensing device" in original claim 30.

#### Clark et al

As already noted, the Examiner dismissed the reference in original claim 30 to the microchannel being defined in a single operation as being a non-limiting feature for original sensor claim 30. There was no allegation by the Examiner that Clark et al disclosed a production technique involving forming a microfluidic channel and the electrodes of a sensing device *in a single operation*.

Claim 30 is now reformulated as a method claim to avoid any question that this feature is a limiting feature of claim 30. Applicants respectfully submit that there is no mention of this feature in Clark et al and, for that matter, as discussed herein, no disclosure of that feature in any of WO02/086162, EP00633468 or WO02/29912.

Claims 1-7, 9-12, 17-20, 30, 31, 33, 35, 36, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 0 633 468 (hereafter "EP '468"). This rejection is traversed for at least the following reasons.

First, with respect to claims 1-7, 9-12, 17-20 and 47, the rejection is most in view of the cancellation of the claims.

Second, independent claim 30 is amended to state the invention as a method, similar to claim 42, with additional wording aimed at better substantiating the existing references to "sensor", "microfluidic channel", and "sensing device" in original claim 30.

#### EP 0 633 468

The Examiner dismissed the reference in original claim 30 to the microchannel being defined in a single operation as being a non-limiting feature for original sensor claim 30. There was no allegation by the Examiner that EP 0 633 468 disclosed a production technique involving forming a microfluidic channel and the electrodes of a sensing device *in a single operation*.

Claim 30 is now reformulated as a method claim to avoid any question that this feature is a limiting feature of claim 30. Applicants respectfully submit that there is no mention of this

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feature in EP 0 633 468 and, for that matter, as discussed subsequently, no disclosure of that feature in any of US 5,194,133, WO02/086162 or WO02/29912.

Claims 42-46 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/29912 (hereafter "WO '912"). This rejection is traversed for at least the following reasons.

## Amended claim 42

The claim now recites all the features of claim 30 plus the additional features recited in original claim 42.

The invention to which amended independent claims 30 and 42 are directed is based on the finding that the kind of technique described in WO02/29912 is particularly suited for the production of a microfluidic sensor. Applicants respectfully submit that it would be an unacceptable use of hindsight to suggest that it would have been obvious to (instead of using the production techniques described in the other prior art documents relating to the production of microfluidic sensors) have used for the production of a microfluidic sensor the kind of technique described in a document (i.e. WO02/29912) which does not relate to the production of microfluidic sensors.

# Claim Rejections - 35 USC § 103

Claims 8, 17-20, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '162. This rejection is traversed for at least the following reasons.

First, with respect to claims 8 and 17-20, the rejection is moot in view of the cancellation of the claims.

Second, with respect to claim 34, the claim would be patentable for reasons already given for the patentability of parent claim 30.

Claims 18, 22-26, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Chow (USP 6,321,791). This rejection is traversed for at least the following reasons.

First, with respect to claims 8 and 22-26, the rejection is moot in view of the cancellation of the claims.

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Second, with respect to claim 32, the claim would be patentable over Clark for reasons already given for the patentability of parent claim 30. Chow does not remedy those deficiencies, as already noted.

Claims 21 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP '468 in view of Knoll (USP 5,393,401). This rejection is traversed for at least the following reasons.

First, with respect to claim 21, the rejection is most in view of the cancellation of the claim.

Second, with respect to claim 37, the claim would be patentable over EP '468 for reasons already given for the patentability of parent claim 30. Knoll does not remedy the deficiencies of EP '468.

Claims 22-25, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP '468 in view of Chow. This rejection is traversed for at least the following reasons.

First, with respect to claims 22-25, the rejection is moot in view of the cancellation of the claim.

Second, with respect to claim 32, the claim would be patentable over EP '468 for reasons already given for the patentability of parent claim 30. Chow does not remedy the deficiencies of EP '468.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP '468 in view of Chow as applied to claim 22 above, and further in view of Knoll. This rejection is moot in view of the cancellation of the claim.

Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of WO '162, Clark, or EP '468 in view of Tsukada et al (USP 5,250,168). This rejection is most in view of the cancellation of the claims.

Claims 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of WO '162, Clark, or EP '468 in view of Tsukada at applied to claim 38 above, in further view of Ito (USP 5,384,028). This rejection is most in view of the cancellation of the claims.

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Allowable Subject Matter

The Examiner has advised that claims 27 and 28 would be allowable if rewritten to

overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and

to include all of the limitations of the base claim and any intervening claims. Claim 27 has been

amended to place it into allowable form. Claim 28 depends from claim 27 and would be

allowable because of that dependency.

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

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